441/1/019
PATENT APPLICATION

#2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Madoka TONOSAKI et al

SERIAL NO.: Unassigned

FILED : December 30, 2004

FOR : NOVEL FUNCTIONAL PEPTIDE NUCLEIC ACID AND PROCESS FOR PRODUCING THE SAME

Certificate of Mailing By Express Mail Under 37 CFR 1.10

Express Mail "Mailing Label No.": ED 173244275 US

Date of Deposit : DECEMBER 30, 2004

I hereby certify that this paper and/or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to Mail Stop PCT, COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450 on DECEMBER 30, 2004

Richard M. Goldberg Dec. 30, 2004

(Name of Registered Representative and person mailing) **(Signature and Date)**

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The Applicants and those individuals involved in the preparation and/or prosecution of the above-identified Application have become aware of the following references which the Examiner may consider material to the patentability of the above-identified Application:

U.S. PATENT NO.	DATE	PATENTEE
6,809,190	10-26-2004	Ikeda et al

PUBLICATIONS

KISFALUDY et al, Synthesis, 1983, (4), pp. 325-327.

ARMITAGE, BRUCE et al, Peptide Nucleic Acid (PNA)/DNA Hybrid Duplexes: Intercalation by an Internally Linked Anthraquinone, Nucleic Acids Research, 1998, Vol. 26, No. 3, pp 715-720.

DUEHOLM, KIM L. et al, Synthesis of Peptide Nucleic Acid Monomers Containing the Four Natural Nucleobases: Thymine, Cytosine, Adenine, and Guanine and their Oligomerization, J. Am. Chem. Soc. 1994, Vol. 59, pp 5767-5773.

EGHOLM, MICHAEL et al, Peptide Nucleic Acids (PNA), Oligonucleotide Analogues with an Achiral Peptide Backbone, J. Am. Chem. Soc. 1992, Vol. 114, pp 1895-1897.

EGHOLM, MICHAEL et al, Recognition of Guanine and Adenine in DNA by Cytosine and Thymine Containing Peptide Nucleic Acids (PNA), J. Am. Chem. Soc. 1992, Vol. 114, pp 9677-9678.

HANVEY, JEFFERY C. et al, Antisense and Antigene Properties of Peptide Nucleic Acids, Science, Vol. 258, November 27, 1992, pp 1481-1485.

LOHSE, JESPER et al, Fluorescein-Conjugated Lysine Monomers for Solid Phase Synthesis of Fluorescent Peptides and PNA Oligomers, Bioconjugate Chem., Vol. 8, 1997, pp 503-509.

NIELSEN, PETER E. et al, Sequence-Selective Recognition of DNA by Strand Displacement with a Thymine-Substituted Polyamide, Science, Vol. 254, December 6, 1991, pp. 1497-1500.

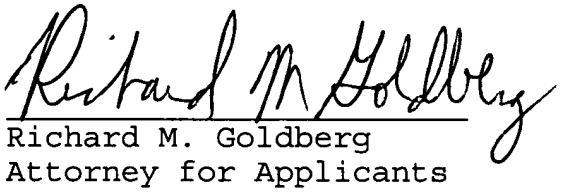
THOMSON, STEPHEN A. et al, Fmoc Mediated Synthesis of Peptide Nucleic Acids, Tetrahedron, Vol. 51, No. 22, 1995, pp 6179-6194.

Copies of the above references are enclosed.

In addition, one Form PTO/SB/08A Form is enclosed, which lists the above references. It is requested that the Examiner initial this Form and return a copy thereof to the undersigned.

It is requested that the above-identified references be made of record in the present Application.

Respectfully submitted,



Richard M. Goldberg
Attorney for Applicants
Registration No. 28,215

25 East Salem Street
Suite 419
Hackensack, New Jersey 07601
TEL (201) 343-7775
FAX (201) 488-3884
e-mail: goldbergpat@earthlink.net

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known	
Application Number	
Filing Date	12-30-2004
First Named Inventor	Madoka TONOSAKI et a
Art Unit	
Examiner Name	
Attorney Docket Number	441/1/019

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 6,809,190	10-26-2004	Ikeda et al	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 2

Complete if Known	
Application Number	
Filing Date	12-30-2004
First Named Inventor	Madoka TONOSAKI ..
Art Unit	
Examiner Name	
Attorney Docket Number	441/1/019

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		KISFALUDY et al, Synthesis, (4), pp. 325-327.	
		ARMITAGE, BRUCE et al, Peptide Nucleic Acid (PNA)/DNA Hybrid Duplexes: Intercalation by an Internally Linked Anthraquinone, Nucleic Acids Research, 1998, V. 26, No. 3, 715-20	
		DUEHOLM, KIM L. et al, Synthesis of Peptide Nucleic Acid Monomers Containing the Four Natural Nucleobases .. J. Am. Chem. Soc. 1994, Vol. 59, 5767-5773.	
		EGHOLM, MICHAEL et al, Peptide Nucleic Acids (PNA), Oligonucleotide Analogues with an Achiral Peptide Backbone, J. Am. Chem. Soc. 1992, Vol. 114, 1895-1897.	
		EGHOLM, MICHAEL et al, Recognition of Guanine and Adenine in DNA by Cytosine and Thymine Containing Peptide Nucleic Acids (PNA), J. Am. Chem. Soc. 1992, Vol. 114, 9677-9678	
		HANVEY, JEFFERY C. et al, Antisense and Antigene Properties of Peptide Nucleic Acids, Science, Vol. 258, November 27, 1992, 1481-1485.	
		LOHSE, JESPER et al, Fluorescein-Conjugated Lysine Monomers for Solid Phase Synthesis of Fluorescent Peptides and PNA Oligomers, Bioconjugate Chem., Vol. 8, 1997, 503-509.	
		NIELSEN, PETER E. et al, Sequence-Selective Recognition of DNA by Strand Displacement with a Thymine-Substituted Polyamide, Science, Vol. 254, December 6, 1991, 1497-1500.	
		THOMSON, STEPHEN A. et al, Fmoc Mediated Synthesis of Peptide Nucleic Acids, Tetrahedron, Vol. 51, No. 22, 1995, 6179-6194.	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.